



Release Notes for the Cisco Bandwidth Quality Manager, Release 3.2

May 18, 2007, OL-11100-03

These release notes provide information about known issues in Cisco Bandwidth Quality Manager 3.2.

Cisco Bandwidth Quality Manager (BQM) provides unsurpassed visibility and analysis of traffic, bandwidth and QoS on packet networks.

The Cisco BQM product offering is an essential component of Cisco's solution for the new generation in congestion monitoring, analysis and control on IP networks to enable the assured delivery of applications and services over the Internet. BQM builds on revolutionary technology to deliver the new generation in congestion monitoring, analysis and control on IP networks through the following unique capabilities:

- Mitigates network application downtime with always-on quality impact assessment of traffic to determine if current network can meet application service quality objectives
- Provides optimized bandwidth sizing and/or QoS policy design for network to meet user-specified application service quality objectives
- Rapidly pinpoints and resolves network application service quality problems which are often invisible to current network tools

What's New in this Release?

BQM software is now available on the

- Cisco Application Deployment Engine (ADE) 1010
- Cisco Application Deployment Engine (ADE) 2120



Note For more information on release 3.2 software installation, see the “Cisco Bandwidth Quality Manager 3.2 Installation Guide.”

For detailed initial setup and configuration information, see the “Getting Started Guide for the Cisco Bandwidth Quality Manager, Release 3.2”.

The following table indicates the upper limits on the number of sites and classes that can be configured on each of the supported platforms and the maximum WAN bandwidth that can be monitored with each.

Table 1: Maximum Sites, Classes, and Monitored WAN Bandwidth per Cisco ADE Platform

Item	Cisco ADE 1010	Cisco ADE 2120 (Single Port)	Cisco ADE 2120 (Two/Four Port)
Sites	20	250	250
Classes	60	1000	1000
Maximum Monitored WAN Bandwidth	100 Mbps	100 Mbps	2 Gbps

System Requirements

This section describes the hardware and browser requirements for BQM 3.2.

Hardware Requirements

BQM software runs on the Cisco ADE 1010 and the Cisco ADE 2120. See the “Cisco Bandwidth Quality Manager 3.2 Installation Guide” for more information on hardware specifications, or contact your sales representative for more information about hardware requirements.

Browser Requirements

The following table describes the browser requirements for all platforms.

Browser	Version	Platform
Internet Explorer	6.0	Windows XP



Note Javascript should be enabled for the browser. We also recommend that you configure the browser to enable pop-ups.

Related Documentation

The following is a list of the documentation for Cisco BQM, Release 3.2:

- Cisco Bandwidth Quality Manager 3.2 Installation Guide
- Getting Started Guide for Cisco Bandwidth Quality Manager Release 3.2
- Cisco Bandwidth Quality Manager 3.2 User Guide

Caveats

This section provides information about known issues in the BQM 3.2 software.

Corvil Bandwidth and Elastic Traffic

Corvil Bandwidth measures the bandwidth required by the traffic currently existing on your network to achieve the stated QoS targets. If the bandwidth available in the network changes, then the traffic may also change in response. For example, if a network is upgraded then bandwidth-limited TCP flows may increase their sending rate, or users may make more active use of particular applications. Corvil Bandwidth does not make predictions about the effect these changes could have on network QoS. Consequently, the target QoS may not be achieved after an upgrade, because of heavier network use by applications and users.

These effects are most likely to be seen in networks where QoS is currently poor, so that the network is the limiting factor for application performance. In these case the Corvil Bandwidth value does always indicate the minimum bandwidth required to meet the targets, since even the existing traffic will not achieve the targets at lower bandwidths.

If upgrading the network bandwidth results in heavier network use, so that the targets are still not achieved, then the Corvil Bandwidth value will indicate that a further upgrade is necessary. We recommend that the Corvil Bandwidth value should be monitored continuously before and after an upgrade, in order to verify that the desired network performance is achieved.

Backup, Restore and Packet Captures

Before performing a backup or restore, it is advisable to stop any manual packet captures that are operating. You should also shut down all measurement ports (using the shutdown command in the config/port context) to effectively disable traffic measurement and any associated event detection packet capture.

Known Issues

The following section identifies software issues that are known to exist in this release of the BQM product and workarounds for issues, where applicable.

The known software issues are grouped under the following areas:

- Configuration
- General GUI issues
- Dashboard
- Traffic Insight
- Congestion Analysis
- Bandwidth Sizing
- Alarms
- CLI

Table 3 **Configuration Issues**

Description	Resolution
The default configuration sets the displayed local port capacities (PortA, PortB, PortC, PortD) at 1Gbs and the aggregate PortABCD is set at 4Gbps. These figures may not reflect the negotiated speed of the link being monitored.	The default values can be configured to match the actual link speed.
Editing class-map match rules in the GUI that have been created using the CLI may lead to inconsistent results.	We recommend that having defined class-map match rules in the GUI that you edit them using the GUI, or if you define them using the CLI, you edit them using the CLI.
Avoid creating remote sites without defining a subnet.	Note the following recommendations when making changes to remote site subnet definitions: * adding to the range of subnets: no action required. * reducing the range of subnets: delete the site and recreate it. * reconfiguring due to misconfiguration: delete the site and recreate it.
In general, newly created interfaces only appear after a summary update. When a new interface is created, it is displayed immediately in the dashboard tree view but doesn't appear in the other screens until the next 5-minute update.	In general, when creating a new interface, wait at least five minutes before looking for results in all

<p>After configuring sites, routers, and interfaces, it can take up to ten minutes for the interface to be displayed on the Traffic Insight tab.</p>	<p>screens.</p> <p>The Traffic Insight tab issue is a screen refresh problem. The workaround here is to go to a different page on the tab, sort or filter the page, or change tabs. The interface should then be displayed.</p>
<p>When configuring monitor-queuing-maps in the GUI, it is not possible to disable the queuing delay target.</p>	<p>Use the CLI to configure a monitor-queuing-map with a disabled queuing delay target. Use the queuing-targets command with no parameters.</p>
<p>There are the following issues when renaming monitor-queuing-maps using the CLI:</p> <ul style="list-style-type: none"> - When you try to rename a monitor-queuing-map, the CLI displays messages relating instead to a "queuing-map". - When you do rename a monitor-queuing-map, the old name still appears in any policy-maps using that map. - There's no way to rename monitor-end-to-end-maps. 	<p>There is no workaround for this issue.</p>
<p>A remote site has the subnet-filtering option turned on by default. If you want a given site to match all traffic regardless of subnet, you must use the no subnet-filtering command on the CLI. There is no option to do this on the GUI.</p>	<p>There is no workaround for this issue.</p>
<p>If you rename a custom application that is referenced in a class-map, and then use the show class-maps command to view the results, the new name is not displayed.</p>	<p>There is no workaround for this issue.</p>
<p>A validation error is returned when trying to add an advanced match rule with the following criteria:</p> <ul style="list-style-type: none"> - Protocol set to UDP/TCP - Source Port set or Destination Port set - Any other option from VLAN, MPLS, or Ethertype set 	<p>Use the CLI to configure advanced match rules with the criteria shown.</p>
<p>If you are configuring a new monitor-queuing-map and select a busy-period less than 4 hours and then check or uncheck another available option (for example, Generate Events when CB exceeds), the screen redraws and the busy period value reverts to the default of 4 hours.</p>	<p>When configuring a monitor-queuing-map, check or uncheck the chosen options first. Then select a busy period before saving.</p>
<p>You cannot use the GUI to apply a different monitor-queuing-map to class-default.</p>	<p>Use the CLI if you want to apply a different monitor-queuing-map to class-default.</p>

The following table describes known issues with the GUI.

Table 4 **GUI – General Issues**

Description	Resolution
The response times on certain GUI screens may result in long delays where large data queries are requested.	There is no workaround for this issue.
If you define a custom period to view monitoring information and leave it configured for more than an hour, navigating between different screens may result in data not being displayed.	Switch to one of the standard reporting periods from the Reporting Period list.
If you open two GUI browser sessions, logged in as admin, but with one window in System Administration mode and the other in Bandwidth Quality Manager mode, when the Bandwidth Quality Manager mode screen refreshes, the System Administration mode window also refreshes but switches to Bandwidth Quality Manager mode.	There is no workaround for this issue.
The Pause button prevents a screen refresh for the current screen only. If you move to a different screen, even though the Pause icon is still highlighted, the new screen will refresh and the data updated after five minutes.	To pause all data updates, define a custom period for the period of interest.
In some cases the help content is inaccessible because there is no vertical scrollbar on the help window.	Refer to the User Guide to see the relevant content.
<p>Sorting by certain columns on the Edit Site and Edit Router screens causes an empty router/interface list to be displayed.</p> <p>Screens/columns affected:</p> <ul style="list-style-type: none"> * Edit Site Screen <ul style="list-style-type: none"> -(local site) Port column -(remote site) Description column * Edit Router Screen <ul style="list-style-type: none"> -(local and remote site) Interface Name, Port, and Bandwidth columns 	The correct list is displayed if another sorting column is selected.
Creating large PDF reports (50 pages) may cause a Java HeapSpace OutOfMemory exception and an error message is displayed in place of the correct PDF report. If you close all browser windows and then attempt to log in, a system error message is displayed.	Wait for at least 15 minutes before attempting to log in to the GUI.
<p>Using a text filter option as well as one or more column filters may not provide the desired results.</p> <p>If you first use a column filter and then try to filter using the text field, the column filters will be reset to All when you click the Filter button. Also, clicking the Clear button beside the text field at any stage, whether there is a text filter applied or not, will reset the column filters back to All.</p>	The interface list can be filtered by typing into the text field and pressing the Filter button, and then further narrowed by cumulatively using the column filters.

The following table describes known issues with the dashboard.

Table 5 ***Dashboard Issues***

Description	Resolution
The dashboard is blank in the first five minutes of use.	The dashboard data is populated after five minutes of use, after the first data rollup.
Even if Congestion Indicator is not configured for a particular class, the five-minute Congestion Indicator graph does not get turned off on the dashboard. The corresponding graph is turned off on the Congestion Analysis page.	There is no workaround for this issue.
After a clear config, the total congested interfaces bar still shows the old total interfaces value.	There is no workaround for this issue.

The following table describes known issues with the Traffic Insight tab.

Table 6 ***Traffic Insight Issues***

Description	Resolution
Rounding of mean values displayed with the time series plots may produce zero values even when there was some data. This effect is more likely when there are gaps in time series data and most of values are near zero.	There is no workaround for this issue.
If you leave a custom period set for greater than one hour, data may no longer be displayed.	Choose a different report period.

The following table describes known issues with the Congestion Analysis tab.

Table 7 ***Congestion Analysis Issues***

Description	Resolution
If you select a sufficiently short period on the 30 or 60 day quality timeline, the resulting event analysis page does not give a clear indication of the date of the selected timescale.	Avoid selecting very short timescales from the 30-day or 60-day reporting periods.
If you create a sufficiently large number of classes (greater than fifteen), they will not all be accessible in the event analysis window.	There is no workaround for this issue.
If you select a custom report period and then choose an event to analyze, the event inspection window may occasionally not display event graphs.	Close the event inspection window and select the custom report period and event again.

When selecting a date using the To or From calendar widget on the inspection page, an error dialog pops up.	Click Ok to close the error message dialog. The chosen dates are populated correctly and you can ignore the error message.
It may not be possible to view event analysis information for short individual events displayed to the extreme left of the quality events timeline in the 24-hour reporting period.	There is no workaround for this issue.
The monitor queuing details, including specific delay targets and sizing policy, are displayed at the interface level in the Congestion Analysis screen, but are not relevant for an interface. They are shown correctly per class.	There is no workaround for this issue.

The following table describes known issues with the Bandwidth Sizing tab.

Table 8 *Bandwidth Sizing Issues*

Description	Resolution
If a packet with a size greater than the configured policer burst size (for example 200 bytes) is measured, the system correctly reports that the burst size needs to be increased, but the reported Corvil Bandwidth values on the CLI and in the GUI graph plot are not correct.	Follow the recommendation but ignore the Corvil Bandwidth as an indicator of required bandwidth.

The following table describes known issues with the Quality Alarms and System Alerts tabs.

Table 9 *Quality Alarms and System Alerts Issues*

Description	Resolution
When you generate a PDF, the Corvil Bandwidth Threshold Exceeded alarm graph is displayed as in the browser, but the Expected Queuing Loss Threshold Exceeded graph is much smaller.	There is no workaround for this issue.
If you attempt to sort on the Severity column all of the previously displayed alarms may no longer be displayed and the alarm count may be shown as "-1". Selecting any of the other columns to sort on will display the correct alarms and the correct count.	There is no workaround for this issue.
The Count value may display negative values when ports are shut down.	There is no workaround for this issue.
No graph is displayed for Expected Policing Threshold Exceeded alarms.	There is no workaround for this issue.
Reported alarms persist beyond a clear config command.	There is no workaround for this issue.

When alarms are issued for class-default, the Source field displays only the relevant interface name. Interfaces and classes have separate microburst graphs so the same alarm source is displayed for either an interface violation or class-default.	Use the Congestion Analysis tab to determine whether the microburst alarm is for an interface or class.
--	---

The following table describes known issues with the CLI.

Table 10 **CLI Issues**

Description	Resolution
If you perform a backup for one BQM appliance and restore this backup to a second BQM appliance, the restore operation overwrites the set of IP address settings on this second device. However, the changed IP address settings do not take effect until the next reboot of the system. So after the next reboot of the second appliance, you will have two appliances with the same IP address on the network. Similarly, a remotely-initiated restore to a BQM appliance on a different subnet may result in this appliance becoming inaccessible after its next reboot.	Following a restore operation to a second appliance, use the setup command on this second appliance to configure the appropriate IP address settings.
If you are using anonymous ftp to perform backups, the backup operations complete but a restore may fail because it sees an incomplete backup directory on the ftp server. Some ftp programs (for example, vsftp) do not allow anonymous uploaders to create or delete files or directories.	Check that you have read/write access on the target ftp server before performing backup and restore.
Large packet capture files (~16GB) can take up to 15 minutes to close when you issue a no capture command. If you attempt to immediately delete any such capture files, you may see the following error message: Error: Cannot delete file because it is currently used by a packet capture instance	Wait at least 15 minutes before attempting to delete large, recent packet capture files.

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Copyright © 2007 Cisco Systems, Inc. All rights reserved. CCVP, the Cisco logo, and the Cisco Square Bridge logo are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networking Academy, Network Registrar, *Packet*, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries. All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0705R)